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AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously amended) A method of transmitting data packets over a synchronous wireless link comprising the steps of:

starting, at a first node, a timer;

determining, at the first node, whether the timer has reached a target value;

in response to the step of determining that the timer is below the target value, sending from the first node to a second node a headerless data packet on the synchronous wireless link, wherein a sequential timer-based value is associated with the headerless data packet;

in response to the step of determining that the timer has reached the target value, checking a packet payload size and determining whether the packet payload size permits transmission of the header with the data packet to the second node;

in response to the step of checking that the packet payload size permits transmission of a header with the packet, transmitting the packet data with the header to the second node;

in response to the step of checking that the packet payload size is above a maximal payload size, transmitting the headerless data packet to the second node; and

repeating, at the first node, the steps of:

checking the packet payload size;

determining whether the packet payload size permits transmission of the header with the packet to the second node;

transmitting the headerless data packet to the second node; and

resetting the timer until the step of checking that the packet payload size permits transmission of the header with the data packet.

2. (Original) The method of claim 1, further comprising assessing radio-bearer limitations of the synchronous wireless link.

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8400 Decarie Boul.
Montreal, QC H4P 2N2 CANADA

Tel: 1-514-345-7900 ext. 6467
Fax: 1-514-345-7929

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3. (Original) The method of claim 2, wherein the step of assessing further comprises determining whether a size of the payload will permit a data packet having a header to be sent on the synchronous wireless link.

4. (Previously amended) The method of claim 3, wherein the step of checking whether the packet payload size permits transmission of a header with the packet further comprises determining the maximal payload size that can be sent on the synchronous wireless link.

5. (Original) The method of claim 3, wherein the period of sending of the data packet having the header varies in response to the step of determining whether the size of the payload will permit a data packet having a header to be sent on the synchronous wireless link.

6. (Original) The method of claim 2, wherein the step of assessing is performed on a data-packet-by-data-packet basis.

7. (Original) The method of claim 1, wherein the step of sending the data packet having the header is performed due to a talk spurt.

8. (Original) The method of claim 7, wherein the data packet having the header comprises a compressed header.

9. (Original) The method of claim 1, wherein the data packet having the header comprises a compressed header.

10. (Original) The method of claim 1, wherein the method operates according to at least one of GSM/GPRS, WCDMA, cdma2000, and TDMA (IS-136).

11. (Original) The method of claim 7, further comprising:
    analyzing properties of a plurality of previously-sent data packets;
    based on the analysis, predicting that a talk spurt is about to occur; and
    wherein the step sending the data packet having the header on the synchronous wireless link is performed in response to the prediction.

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12. (Original) The method of claim 7, further comprising:

buffering a plurality of data packets;

examining the plurality of data packets to determine whether a talk spurt is occurring; and

wherein the step of sending the data packet having the header on the synchronous wireless link is performed in response to a determination that a talk spurt is occurring and prior to sending of a first data packet including the talk spurt.

13. (Original) The method of claim 1, wherein the step of sending the data packet having the header is performed periodically.

14. (Original) The method of claim 13, wherein the data packet having the header comprises a compressed header.

15. (Previously amended) The method of claim 13, wherein the step of sending the data packet having the header comprises:

determining a maximal payload size that can be sent on the synchronous wireless link;

in response to a determination that a payload size of a packet data is above the determined maximal payload size, sending at least one headerless data packet; and

In response to a determination that a data packet having a header can be sent, sending a data packet having a header that is below the determined maximal payload size.

16. (Currently amended) The method of claim 1, further comprising:

receiving, at the second node, the headerless data packet from the synchronous wireless link;

decompressing, at the second node, based at least in part on the sequential timer-based value associated with the received headerless data packet, the header of the received headerless data packet; and

wherein the step of decompressing comprises timer-based decompression of at least one dynamic part of the header of the received headerless data packet.

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17. (Previously amended) The method of claim 16, wherein the at least one dynamic part comprises at least one of a Real-time Transport Protocol Sequence Number, a Real-time Transport Protocol Timestamp, and an IP-Identifier.

18. (Original) The method of claim 1, wherein the step of sending the data packet having the header is performed in response to a determination that a value of a slowly-varying field in a removed header has changed from an earlier value thereof.

19. (Original) The method of claim 18, wherein the data packet having the header comprises a compressed header.

20. (Previously amended) The method of claim 1, wherein the step of sending the data packet having the header is performed in response to feedback indicating that the sequential timer-based value associated with the received headerless data packet is different than a sequential timer-based value expected.

21. (Original) The method of claim 20, wherein the data packet having the header comprises a compressed header.

22. (Previously amended) The method of claim 1, wherein the sequential timer-based value comprises at least one of a Real-time Transport Protocol Sequence Number, a Real-time Transport Protocol Timestamp, and an Internet protocol identifier.

23. (Original) The method of claim 1, further comprising removing a header from a data packet comprising a payload and the header, thereby creating a headerless data packet.

24. (Currently amended) The method of claim [[1]] 16, wherein the step of decompressing comprises timer-based decompression.

25. (Original) The method of claim 1, wherein the header is sent as primary traffic.

26. (Original) The method of claim 1, wherein the header is sent as signaling traffic.

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8400 Decarie Boul.
Montreal, QC H4P 2N2 CANADA

Tel: 1-514-345-7900 ext. 6467
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27. (Original) The method of claim 1, wherein the header is sent as secondary traffic.

28-67. (Canceled)

68. (Previously amended) A node for transmitting data packets over an asynchronous wireless link, the node comprising:

a compressor adapted to:

determining a target value;

starting a timer;

determining whether the timer has reached the target value;

checking a packet payload size and determining whether the packet payload size permits transmission of the header with the data packet to a second node in response to the step of determining that the timer has reached the target value;

a transmitter adapted to:

send a headerless data packet on the synchronous wireless link in response to the determination at the compressor that the timer is below the target value, wherein a sequential timer-based value is associated with the headerless data packet;

transmit the packet data with the header to the second node in response to the step of checking, at the compressor, that the packet payload size permits transmission of a header with the packet;

transmit the headerless data packet to the second node in response to the step of checking, at the compressor, that the packet payload size is above a maximal payload size;

wherein the compressor is adapted to repeat the execution of the steps of checking the packet payload size, determining whether the packet payload size permits transmission of the header with the packet to the second node, resetting the timer and the transmitter is adapted to repeat the execution of the step of transmitting the headerless data packet to the second node until the step of checking that the packet payload size permits transmission of the header with the data packet.

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69. (Canceled)

70. (Currently amended) The node of claim 68, wherein the node is adapted to determine a maximal size payload header that can be sent by the node on the synchronous wireless link.

71-72. (Canceled).

73. (Original) The node of claim 68, wherein the node operates according to at least one of GSM/GPRS, WCDMA, cdma2000, and TDMA (IS-136).

74. (Canceled)

75. (Previously amended) The node of claim 68, wherein the first data packet having the header is sent in response to feedback indicating that the sequential timer-based value is different than a sequential timer-based value expected.

76-77. (Canceled).

77. (Original) The node of claim 68, wherein the second data packet having a header comprises a compressed header.

78. (Currently amended) The node of claim 68, further comprising:
> a compressor adapted to:
> > remove a header from a data packet comprising a payload and the header, thereby creating the ~~first~~ headerless data packet
> a receiver adapted to:
> > receive the headerless data packet via the synchronous wireless link; and
> a decompressor adapted to:
> > decompress, based at least in part on the sequential timer-based value associated with the headerless data packet, the header of the headerless data packet.

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79. (Previously amended) The node of claim 68, wherein the sequential timer-based value comprises at least one of a Real-time Transport Protocol Timestamp, a Real-time Transport Protocol Sequence Number, and an Internet protocol identifier.

80-82. (Canceled)

83-107. (Canceled)

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8400 Decarie Boul.   Tel: 1-514-345-7900 ext. 6467
Montreal, QC H4P 2N2 CANADA   Fax: 1-514-345-7929